

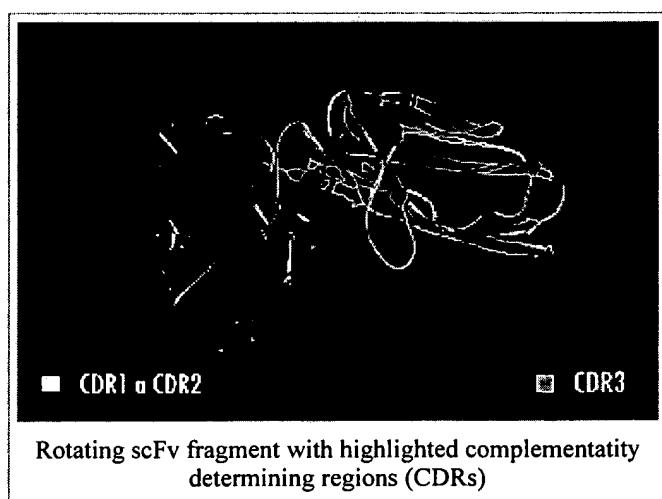
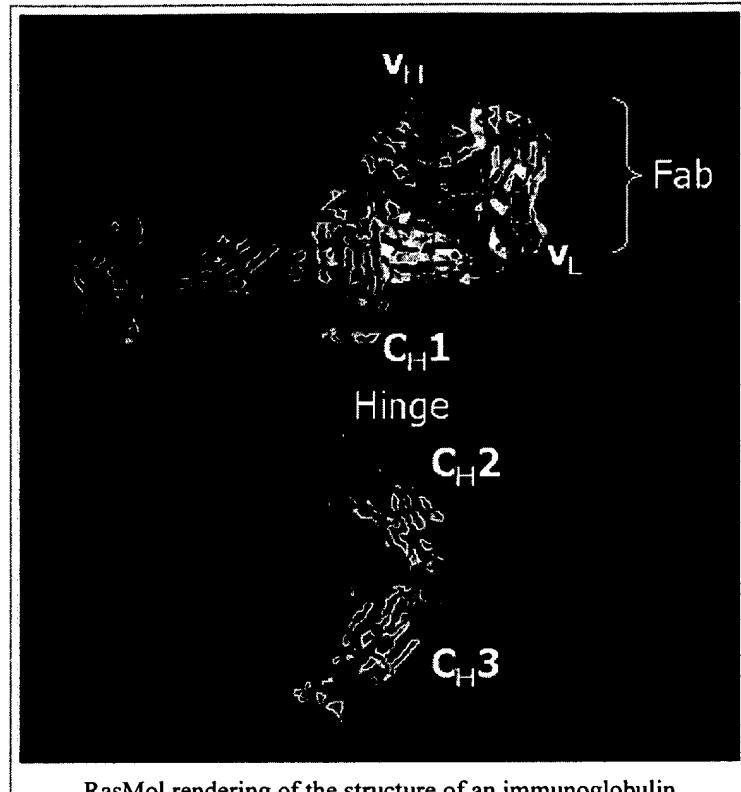
Single chain variable fragment

From Wikipedia, the free encyclopedia

Single Chain Variable Fragment (scFv) is a fusion of the variable regions of the heavy and light chains of immunoglobulin, linked together with a short (usually serine, glycine) linker.

This chimeric molecule retains the specificity of the original immunoglobulin, despite removal of the constant regions and the introduction of a linker peptide. If one inspects the structure of immunoglobulin (image to the right) and appreciates its modular structure, one can visualize how this modification usually leaves the specificity unaltered.

These molecules were created historically to facilitate phage display where it is highly convenient to express the antigen binding domain as a single peptide. Alternatively, scFv can be created directly from subcloned heavy and light chains derived from a hybridoma. ScFvs have many uses - e.g. flow cytometry, immunohistochemistry and as antigen binding domains of artificial T cell receptors.



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Category: Molecular biology

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